P. lapradei, a difference which Bridge observed in two specimens of *Polypterus* and which he attributed to great range of variation.

This paper will be published in full in the Society's 'Transactions.'

The following papers were read:—

1. A List of the Batrachians and Reptiles of the Gaboon (French Congo), with Descriptions of new Genera and Species. By G. A. Boulenger, F.R.S.

[Received March 20, 1900.]

(Plates XXVII.-XXXII.)

Mr. G. L. Bates, who has been stationed for some time on the Benito River, north of the Gaboon River, between 20 and 30 miles inland from the coast, has been so kind as to collect Batrachians and Reptiles for the British Museum, and so lucky as to discover, especially among the former, a number of new or interesting forms, on some of which I have already reported[1]. Whilst describing the new forms of which an account is given in this paper, it appeared to me useful to compile a complete list of all the species on record from the Gaboon district—viz., the part of West Africa situated between Camaroons and Loango, in the French Congo[2]. Such a stock-taking seemed to me particularly useful with reference to the work on the distribution of species in the Congo basin, with which I am now engaged. I must observe, however, that I am convinced that the list will have to be increased by the addition of a number of widely distributed species which are known both north and south of the Gaboon district, and which will, no doubt, be found when more extensive collections are made; but I have introduced the names of such species only of which I have seen examples from the district, or which have been recorded on reliable authority.

Only five contributions dealing specially with the Batrachians and Reptiles of the Gaboon district have been published so far:—

Duméril, A.—"Note sur les Reptiles du Gabon." Rev. et Mag. de Zool. 1856, pp. 369–377, 417–424, 460–470, 553–562, pls. xx. & xxi.—The new species described in this paper have been redescribed and mostly figured in the same author's "Reptiles de l'Afrique occidentale," Arch. du Mus. x. 1859, pp. 137–240, pls. xiii.-xviii.

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[1] Ann. & Mag. N. H. (7) iii. 1899, pp. 274, 276, and iv. 1899, p. 122.

[2] The term Gaboon is here taken in the old sense. I do not know on what authority the Gold Coast is included in the Gaboon Country by Günther, P. Z. S. 1899, pp. 716 & 721.

Hallowell, E.—"Notice of a Collection of Reptiles from the Gaboon County, West Africa, recently presented to the Academy of Natural Sciences of Philadelphia by Dr. Henry A. Ford." Proc. Acad. Philad. 1857, pp. 48–72.

Peters, W., and Buchholz, R.—"Zweite Mittheilung über die in West Africa gesammelten Amphibien." Mon. Berl. Ac. 1867, pp. 117–123. [Mostly from the Gaboon and Ogowe.]

Günther, A.—"Report on a Collection of Reptiles and Fishes made by Miss M. H. Kingsley during her Travels on the Ogowe River and in Old Calabar." Ann. & Mag. N. H. (6) xvii. 1896, pp. 261–285.

Mocquard, F.—"Sur une Collection de Reptiles recuillie par M. Haug à Lambaréné." Bull. Soc. Philom. (8) ix. 1897, pp. 5–20.

For the nomenclature and synonyms I must refer the reader to the British Museum Catalogues. I have added references to publications issued since the appearance of these general works.

Mr. Bates's discoveries have enriched herpetology with 5 new genera and 13 new species, some of which are of special morphological interest. The discovery of *Hymenochirus* and *Cardioglossa* has extended our knowledge of geographical distribution by adding African representatives to the families *Pipidæ* and *Dendrobatidæ*, the former having been based on the single South-American genus *Pipa*, the latter being hitherto regarded as characteristic of Tropical America and Madagascar.

I wish to record my thanks to the Board of Curators of the Philadelphia Academy of Natural Sciences for the loan of type specimens described in 1857 by the late Dr. Hallowell.

BATRACHIA.

APODA.

1. Uræotyphlus seraphini A. Dum.

Hab. Gaboon.

2. Herpele squalostoma Stutchbury.

Hab. Gaboon.

ECAUDATA.

Dactylethridæ.

3. Xenopus calcaratus Ptrs.

Hab. West Africa, from Liberia to the Congo.

One of the specimens collected by Mr. Bates on the Benito River has been prepared as a skeleton. There are only seven præcaudal vertebræ, the first being formed by the fusion of two (as is clearly proved by the large nerve-foramen in front of the diapophysis).

PIPIDÆ.

4. HYMENOCHIRUS BOETTGERI Tornier.

Xenopus boettgeri, Tornier, Kriechth. Deutsch-Ost-Afr. p. 163, fig. (1896).

Hymenochirus boettgeri, Bouleng. Ann. & Mag. N. H. (6) xviii. 1896, p. 420, and (7) iv. 1899, p. 122; Ridewood, Journ. Linn. Soc., Zool. xxvii. 1900, p. 454, pl. xxxi.

Hab. German East Africa; Gaboon.

In recently recording the occurrence of this extraordinary Batrachian on the Benito River, I have pointed out that the absence of teeth necessitates its removal from the *Dactylethridæ* to the *Pipidæ.* My notes on the skeleton have been corrected and supplemented by Dr. Ridewood in the paper quoted above, dealing with the hyoid and larynx and the carpus.

BUFONIDÆ.

5. BUFO TUBEROSUS Gthr.

Hab. Fernando Po, Camaroons, Gaboon.

Several specimens were obtained on the Benito River by Mr. Bates. The upper parts are not always uniformly coloured; they are sometimes handsomely spotted or marbled with darker brown, and a yellow or crimson vertebral line is often present.

6. BUFO REGULARIS Reuss.

Hab. The whole of Africa with the exception of Barbary. I have, however, not myself examined specimens from the Gaboon and there were none in the collection made by Mr. Bates.

7. BUFO LATIFRONS, sp. n. (Plate XXVII. fig. 1.)

Crown without bony ridges; snout short, blunt; interorbital space slightly concave, broader than the upper eyelid; tympanum distinct, three-fifths the diameter of the eye. First finger much longer than second; toes half-webbed, with single subarticular tubercles; two rather small metatarsal tubercles; a tarsal fold. The tarso-metatarsal articulation reaches the anterior border of the eye. Upper parts with irregular warts, some of which may be conical; parotoids elliptic, feebly prominent, rather indistinct. Olive-brown above, with or without a yellowish vertebral line, with more or less symmetrical black markings; limbs with dark cross-bars; bright pink spots on the back of the thighs; lower parts dirty white, throat greyish, breast with small greyish spots.

From snout to vent 73 millim.

Three specimens, females and young, from the Benito River (*G. L. Bates*).

This species stands very near to *B. regularis.* It is distinguished by the broader interorbital region, the smaller tympanum, and the feebly prominent parotoid glands.

8. Bufo superciliaris Blgr.

Bufo superciliaris, Bouleng. Proc. Zool. Soc. 1887, p. 565.

Bufo lævissimus, Werner, Sitzb. Bayer. Ak. xxvii. 1897, p. 212, and Verh. zool.-bot. Ges. Wien, xlviii. 1898, p. 202, pl. ii. fig. 1.

This curious Toad was described from young specimens collected by Sir H. H. Johnston in the Rio del Rey district, Camaroons. Adult specimens have been redescribed by Werner under the name of *B. lævissimus*, from Camaroons. A young specimen is in Mr. Bates's collection from the Benito River. I have also examined a fine specimen, measuring about 120 millim. from snout to vent, from the Congo Free State.

9. Bufo gracilipes Blgr.

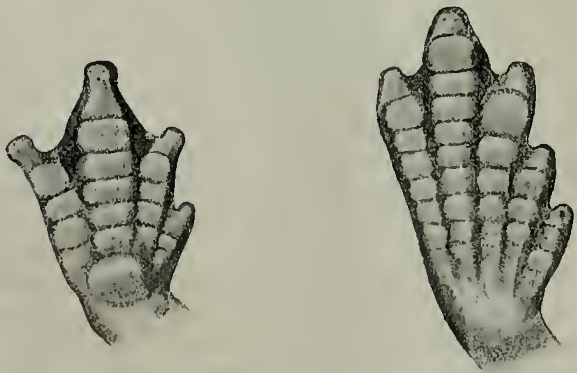
Bufo gracilipes, Blgr. Ann. & Mag. N. H. (7) iii. 1899, p. 276, pl. xii. fig. 2.

I have recently described this Toad from a single specimen from the Benito River, collected by Mr. Bates. I have now examined several specimens, and have to add that the tarso-metatarsal articulation may fail to reach beyond the anterior border of the eye, that the toes are one-third webbed in breeding specimens, that the parotoid glands may be more distinct than in the type specimen, narrow and shorter than the head, and that the male is provided with an internal subgular vocal sac and brown nuptial asperities on the inner side of the two inner fingers. Limbs with dark cross-bars. The largest male measures 30 millim. from snout to vent, the largest female 40.

10. Nectophryne afra Ptrs.

Originally described from Camaroons. Two specimens (♂ ♀) are in Mr. Bates's collection from the Benito River.

Fig. 1.



Hand and foot of *Nectophryne afra*, showing the subarticular tubercles of the fingers and toes.

The subarticular tubercles of the fingers and of the toes are much developed, and flattened into overlapping pads which bear a close resemblance and are no doubt functionally analogous with the subdigital lamellæ of the scansorial Geckos. Such a structure had not been observed before in any Batrachian. Buchholz and Peters have not alluded to it otherwise than by mentioning "dunkle Querlinien unter den Zehen," which I believe to be the result of an optical delusion caused by the lamellæ to which attention is now drawn.

The male, which is devoid of vocal sacs, measures only 17 millim. from snout to vent; the female measures 21.

RANIDÆ.

11. RANA CRASSIPES Ptrs.

This species is known from Camaroons and the Gaboon. I have examined 10 specimens collected by Mr. Bates on the Benito River, the largest measuring 63 millim. from snout to vent.

As pointed out by Günther (Ann. & Mag. N. H. [6] xvii. 1896, p. 266), the vomerine teeth are sometimes absent; this is the case in three of Mr. Bates's specimens. When present, they form two very small groups just behind the level of the choanæ. The tympanum is more or less distinct, measuring three-fourths or fourth-fifths the diameter of the eye. The colour of the upper parts varies from greyish olive or purplish brown to blackish, with or without very indistinct darker and lighter spots or marblings; dark cross-bars on limbs usually irregular, sometimes absent; lower parts white, throat often spotted or marbled with dark brown.

12. RANA SUBSIGILLATA A. Dum.

This species, which has been well figured by A. Duméril, is known from Old Calabar, Camaroons, and the Gaboon. Several specimens were collected by Mr. Bates on the Benito River, the largest measuring 88 millim. from snout to vent.

The species is remarkable for its long head without canthi rostrales, and its short limbs, the tibio-tarsal articulation reaching the tympanum; the diameter of the latter is two-thirds to three-fourths that of the eye. The upper parts are of a dark brown, but the sides of the head and body and the fore limbs are often tinged with bright carmine. The lower parts, in the young, are olive, with close-set round pale yellow spots on the throat and belly; with age, the dark colour between the spots becomes reduced to a network, which may even almost entirely disappear. Some specimens have a rather indistinct flat round gland under each thigh, as in most species of the genus *Mantidactylus*.

13. RANA ÆQUIPLICATA Werner.

Rana mascareniensis, var. *æquiplicata*, Werner, Verh. z.-b. Ges. Wien, xlviii. 1898, p. 192.

Vomerine teeth in two short oblique series commencing from the inner front edges of the choanæ. Head moderate, as long as broad or a little longer than broad; snout pointed, longer than the diameter of the orbit; canthus rostralis distinct; loreal region deeply concave; nostril midway between the eye and the end of the snout; interorbital space nearly as broad as the upper eyelid; tympanum distinct, two-thirds or three-fourths the diameter of the eye. Fingers moderate, obtusely pointed, first not extending beyond second; toes broadly webbed, the web reaching the extremity of the third and fifth toes, but leaving two phalanges of the fourth toe free; subarticular tubercles moderate; a very small, oval, inner metatarsal tubercle, no outer tubercle. The tibio-tarsal articulation reaches far beyond the tip of the snout; tibia more than two-thirds the length of head and body. Skin more or less distinctly granular above, with numerous, interrupted, glandular, longitudinal folds on the back; a glandular fold from beneath the eye to the shoulder. Olive-brown above, with small dark spots, with or without a broad whitish or pink vertebral band; usually a dark cross-bar between the eye; a black canthal streak and a black temporal spot; tympanum reddish brown; limbs with dark cross-bars; hinder side of thighs black, spotted or marbled with white or pink; a series of black spots on the lower jaw; throat and belly yellow, immaculate. Male with two black external vocal vesicles projecting through two slits below the lower jaw.

From snout to vent 50 millim.

Five specimens from the Benito River are in Mr. Bates's collection. Dr. Werner's specimens were from Camaroons.

Closely allied to *R. mascareniensis*; differs in the more extensively webbed toes and the more numerous, interrupted folds along the back.

14. RANA MASCARENIENSIS D. & B.

Hab. Egypt, Tropical Africa, Seychelles, Madagascar, Mascarenes.

The Gaboon specimens belong to the var. *bibronii* Hallow. (*superciliaris* Gthr.), with longer snout and longer hind limbs. The head is longer than broad, and the tibio-tarsal articulation reaches beyond the end of the snout.

15. RANA ALBOLABRIS Hallow.

Hab. Fernando Po, Camaroons, Gaboon, Lower Congo.

Females grow to a length of 93 millim. from snout to vent. In such large specimens the dorso-lateral glandular fold becomes more indistinct, the tibio-tarsal articulation reaches the eye or between the eye and the end of the snout, the first finger does not extend beyond the second, and the white border to the upper lip, whence the species derives its name, disappears more or less completely.

SCOTOBLEPS, g. n.

Pupil vertical. Tongue free and deeply notched behind. Vomerine teeth. Tympanum distinct. Fingers free; toes webbed. Outer metatarsals narrowly separated by web. Omosternum and sternum with a bony style. Terminal phalanges simple, obtuse.

This genus may be defined as *Rana* with a vertical pupil.

16. SCOTOBLEPS GABONICUS, sp. n. (Plate XXVIII. fig. 1.)

Vomerine teeth in two small groups on a line with the posterior borders of the choanæ. Head rather large, as long as broad; snout obtusely pointed, with feeble canthus rostralis; loreal region slightly concave; nostril equally distant from the eye and the end of the snout; eye large; interorbital space narrower than the upper eyelid; tympanum not quite half the diameter of the eye. Fingers and toes moderately elongate, with slightly swollen tips and very strong subarticular tubercles; first finger extending as far as second; toes half-webbed; an oval inner metatarsal tubercle. The tibio-tarsal articulation reaches the nostril. Skin smooth, or with small flat warts on the back. Olive-brown above, with small blackish spots; a dark cross-band between the eyes; upper lip with blackish vertical bars, the one below the anterior third of the eye extending on the lower lip; limbs with dark cross-bars; lower parts white. Male with internal vocal sacs.

From snout to vent 57 millim.

Three specimens from the Benito River (*G. L. Bates*).

17. PETROPEDETES NEWTONI Bocage.

Tympanoceros newtonii, Bocage, Jorn. Sc. Lisb. (2) iii. 1895, p. 270, and iv. 1895, p. 18, pl. —.

Males differ from females in the larger tympanum, which is larger than the eye, and from the centre of which a horn-like dermal tubercle projects, in the presence of a long spine on the inner side of the first finger, and in the greater size of a large flat oval gland on the lower side of the thigh.

Several specimens were obtained on the Benito River by Mr. Bates. The specimens described by Barboza du Bocage are from Fernando Po.

The genus *Petropedetes* Reichenow (Arch. f. Nat. 1874, p. 290) is nearly related to *Cornufer*, but differs in the division of the dermal pad on the upper surface of the digital expansions by a short distal groove, giving it a cordiform appearance. The males are remarkable for the large glands under the thighs, which are absent or feebly developed in the females. In addition to the type species and the one now referred to, the genus embraces *Cornufer johnstoni* Boulenger, from the Rio del Rey, Camaroons. The three species may be distinguished as follows:—

P. cameronensis Reich. Toes half-webbed; tympanum half diameter of eye.

P. johnstoni, Blgr. Toes with a mere rudiment of web; tympanum half diameter of eye.

P. newtoni Bocage. Toes with a mere rudiment of web; tympanum more than half diameter of eye; male with a spine on the inner finger and a dermal tubercle on the tympanum.

18. Phrynobatrachus auritus, sp. n. (Plate XXVIII. fig. 2.)

Tongue with a free conical papilla in the middle. Habit slender. Head moderate, as long as broad; snout pointed, projecting beyond the mouth, with angular canthus and nearly vertical loreal region; nostril equally distant from the eye and the end of the snout; interorbital space narrower than the upper eyelid; tympanum distinct, measuring nearly half the diameter of the eye. First finger as long as second; toes two-thirds webbed; tips of fingers and toes dilated into small disks; subarticular tubercles small; two small metatarsal tubercles; a very small tubercle not far from the latter, on the inner side of the tarsus. The tibio-tarsal articulation reaches the tip of the snout. Skin smooth, or with very small warts above; a narrow glandular fold on each side of the back from the eyes to the sacral region, the two folds converging on the scapular region; a similar fold from the eye to the shoulder. Greyish or reddish brown above, darker on the middle of the back, with or without a filiform light vertebral line, which is continued along the middle of the upper surface of the thigh and the inner side of the leg; glandular folds edged with blackish; a few round black spots may be present on the pelvic region; limbs with rather indistinct darker cross-bars; hinder side of thighs blackish brown, edged with whitish above near the vent; inner side of legs also blackish brown; lower parts white, with small brownish spots on the throat and breast in the female; the throat blackish in the male. Male with an internal subgular vocal sac.

From snout to vent 37 millim.

Three specimens from the Benito River (*G. L. Bates*).

The distinct tympanum distinguishes this species from *P. plicatus* Gthr., to which it bears some resemblance.

19. Phrynobatrachus latirostris, sp. n. (Plate XXVIII. fig. 3.)

Tongue with a free conical papilla in the middle. Habit moderately slender. Head moderate, as long as broad; snout short, rounded; canthus rostralis distinct; loreal region concave; nostril equally distant from the eye and the end of the snout; interorbital space as broad as the upper eyelid; tympanum distinct, measuring three-fifths the diameter of the eye. Fingers and toes moderate, the tips dilated into small disks; first finger not extending as far as second; toes half-webbed; a small, oval, inner metatarsal tubercle. The tibio-tarsal articulation reaches between the eye and the end of the snout. Skin smooth; a slight curved fold behind the eye, converging towards its fellow on the scapular region. Dark grey-brown above; a dark triangular spot between the eyes; glandular folds dark-edged; upper lip lighter, with dark vertical bars; lower lip dark brown in the male, with a series of small white spots; limbs with dark cross-bars; anal region blackish, edged with whitish above; throat grey in the male, white, spotted with brown, in the female; belly and lower surface of limbs white, breast spotted with brown. Male with an internal subgular vocal sac.

From snout to vent 30 millim.

A single male specimen from the Benito River (*G. L. Bates*).

A smaller female specimen from Lambarene, collected by Miss Kingsley, has been referred by Günther to *Cornufer johnstoni*.

20. ARTHROLEPTIS AFRICANUS Hallow.

Heteroglossa africana, Hallow. Proc. Ac. Philad. 1857, p. 64; Cope, Proc. Ac. Philad. 1862, p. 343.

Arthroleptis? africanus, Bouleng. Cat. Batr. Ecaud. p. 119 (1882).

Arthroleptis gabonensis, Mocquard, Bull. Soc. Philom. (8) ix. 1897, p. 17.

Thanks to the kindness of Dr. Chapman, Chairman of the Board of Curators of the Museum of the Academy of Sciences of Philadelphia, I have been able to examine the type specimen from the Gaboon, preserved in that Institution, and compare it with two specimens, male and female, collected by Mr. Bates on the Benito River.

Tongue with a free conical papilla in the middle. Head rather large, as long as broad; snout obtusely pointed, with feeble canthus and concave loreal region; interorbital space narrower than the upper eyelid; tympanum distinct, two-thirds the diameter of the eye. Fingers and toes moderate, the tips swollen into small disks; first finger not extending beyond second; toes with a short but very distinct web; two metatarsal tubercles, inner oval, outer round, subconical; a small tubercle on the tarsus, near the inner metatarsal tubercle. The tibio-tarsal articulation reaches the nostril. Upper parts with small flat warts; a feeble curved fold on each side of the scapular region. Dark brown above; limbs with darker cross-bars; blackish vertical bars on the sides of the head; white beneath, limbs spotted with brown; throat spotted with brown in the female, entirely black in the male, which is provided with an internal vocal sac.

From snout to vent 30 millim.

21. ARTHROLEPTIS VARIABILIS Matschie.

Arthroleptis dispar (*non* Peters, 1870), Peters, Mon. Berl. Ac. 1875, p. 210, pl. iii. figs. 1–3.

Arthroleptis variabilis, Matschie, Sitzb. Ges. nat. Fr. Berl. 1893, p. 173; Bocage, Jorn. Sc. Lisb. (2) iv. 1895, p. 18; Werner, Verh. zool.-bot. Ges. Wien, xlviii. 1898, p. 193.

Hab. Fernando Po, Camaroons, Gaboon.

22. ARTHROLEPTIS MACRODACTYLUS Blgr.

Arthroleptis macrodactylus, Bouleng. Cat. Batr. Ecaud. p. 117, pl. xi. fig. 5 (1882), and Zool. Rec. 1885, Rept. p. 23; Günth. Proc. Zool. Soc. 1893, p. 620.

Arthroleptis bivittatus, F. Müll. Verh. nat. Ges. Basel, vii. 1885, p. 671, pl. ix. figs. k–l.

Hab. Gaboon, Tumbo Id. (Gulf of Guinea), Nyassaland.

23. ARTHROLEPTIS INGUINALIS, sp. n. (Plate XXVII. fig. 2.)

Tongue without conical papilla. Head moderate, as long as broad; snout rounded; canthus rostralis obtuse; loreal region concave; interorbital space as broad as the upper eyelid; tympanum distinct, three-fifths to two-thirds the diameter of the eye. Fingers and toes rather elongate, slender, the tips merely swollen; subarticular tubercles very prominent; first finger not extending beyond second; toes practically free, the rudiment of web being very indistinct; a rather large, very prominent, oval, compressed inner metatarsal tubercle; no outer metatarsal tubercle; no tarsal tubercle. The tibio-tarsal articulation reaches the eye or between the eye and the end of the snout. Skin smooth. Coloration very variable: greyish or brownish above, uniform or spotted or freckled with darker, or with dark symmetrical markings; a black canthal and temporal streak; a more or less distinct dark spot or short oblique band on the groin; limbs with dark spots or bars; lower parts white, throat usually freckled with brown. Male with an internal vocal sac.

From snout to vent 30 millim.

Numerous specimens from the Benito River (*G. L. Bates*).

GAMPSOSTEONYX, g. n.

Pupil vertical. Tongue free and feebly notched behind. Vomerine teeth. Tympanum distinct. Fingers and toes free, the tips slightly swollen; terminal phalange of all but the inner toe a sharp curved claw, projecting through a slit on the lower surface of the extremity of the toe. Outer metatarsals bound together. Omosternum and sternum with a bony style.

The projecting, non-retractile bony claw, uncovered with a horny sheath, which arms the toes with the exception of the hallux, is a feature unique, so far, not only among Batrachians but among Vertebrates. The only other instance I know of bone being exposed through the skin in Vertebrates higher than Fishes is to be found in the ends of the ribs of *Molge* (*Pleurodeles*) *waltlii* Mich. and *Tylototriton andersonii* Blgr.

24. GAMPSOSTEONYX BATESI, sp. n. (Plate XXIX.)

Vomerine teeth in two small round groups between the choanæ. Head large, much broader than long; snout broadly rounded, with short canthi and very oblique, slightly concave lores; nostril equally distant from the eye and the end of the snout; eye large; interorbital space as broad as the upper eyelid; tympanum very distinct, oval, little smaller than the eye. First finger longer than second, nearly as long as third; subarticular tubercles of fingers and toes feeble; a small, oval, inner metatarsal tubercle. The tibio-tarsal articulation reaches the eye. Skin smooth and shiny; a glandular fold above the tympanum. Dark purplish brown above, white beneath; a black canthal and temporal streak; a black transverse line between the eyes; two dark bars on the upper lip, the first under the nostril, the second below the anterior third of the eye; limbs with rather indistinct dark cross-bars; lower surface of crus and tarsus dark brown.

From snout to vent 70 millim.

A single specimen from the Benito River (*G. L. Bates*).

TRICHOBATRACHUS, g. n.

Pupil vertical. Tongue subcordiform, free and notched behind. Vomerine teeth. Tympanum distinct. Fingers free; toes webbed. Outer metatarsals bound together. Omosternum with a bony style; sternum a cartilaginous plate, without style. Terminal phalanges simple, obtuse.

To these characters might be added the villose dermal papillæ which cover some parts of the body, whence the name proposed for this new genus, were it not that I suspect it to be a mere seasonal peculiarity; far from being a nuptial attribute of the males, as one might have been inclined to suppose from analogy with various Fishes, the character is more strongly developed in the female than in the male.

25. TRICHOBATRACHUS ROBUSTUS, sp. n. (Plate XXX.)

General appearance suggestive of *Rana liebigi* Gthr. Vomerine teeth in two short transverse series between the rather large choanæ. Head larger, broader than long, much depressed; snout very short, rounded, with distinct canthi and very oblique, slightly concave lores; nostril slightly nearer the eye than the end of the snout; interorbital space a little broader than the upper eyelid; tympanum moderately distinct, half the diameter of the eye. Limbs robust; tips of digits slightly swollen; first finger much longer than second, as long as third; toes half-webbed; subarticular tubercles large; a feebly prominent, elongate, inner metatarsal tubercle. The tibio-tarsal articulation reaches the eye. Skin smooth; sides of body, back of thighs, and a stripe along the upper surface of the latter with hair-like papillæ, more developed in the female than in the male. Olive-brown above; a darker, black-edged broad band along the back, fading away behind and sharply defined in front by a black cross-bar between the eyes; a black canthal and temporal streak; sides of body and limbs blackish; lower parts white, female with brown dots on the throat. Male with a pair of internal vocal sacs, and with three short ridges (two longitudinal and one transverse) of small horny black spines on the inner side of the first finger.

From snout to vent 110 millim.

Two specimens (♂ ♀) from the Benito River (*G. L. Bates*).

DILOBATES, g. n.

Pupil vertical. Tongue subcordiform, free and notched behind. Vomerine teeth. Tympanum distinct. Fingers free; toes nearly free, with a slight rudiment of web. Outer metatarsals bound together. Omosternum and sternum small, cartilaginous. Terminal phalanges simple, obtuse.

26. Dilobates platycephalus, sp. n. (Plate XXVII. fig. 3.)

Vomerine teeth in two small groups on a line with the posterior borders of the choanæ. Head very broad, much broader than the body, depressed, with very oblique lores and temples; snout rounded; canthus rostralis distinct; a loreal concavity; nostril equally distant from the eye and the end of the snout; interorbital space as broad as the upper eyelid; tympanum almost as large as the eye. Fingers and toes rather short, obtuse; first finger extending beyond second; subarticular tubercles moderate; a small, oval, inner metatarsal tubercle. Hind limb slender; the tibio-tarsal articulation reaches the anterior border of the eye. Skin smooth. Olive above, with small black spots; a dark cross-band between the eyes, preceded by a yellowish one; sides of head yellowish, with two dark bars, the first below the nostril, the second below the anterior half of the eye; fore limb yellowish; limbs with blackish transverse spots; lower parts white.

From snout to vent 26 millim.

A single specimen from the Benito River (*G. L. Bates*).

27. Rappia fimbriolata Buchh. & Ptrs.

Hyperolius fimbriolatus, Buchholz & Peters, Mon. Berl. Ac. 1876, p. 121.

Rappia fimbriolata, Boettg. Ber. Senck. Ges. 1887–88, p. 96.

Hab. Ogowe and Loango.

28. Rappia marmorata Rapp.

Hab. Tropical and South Africa.

29. Rappia ocellata Gthr.

Hab. Fernando Po to Angola.

30. Rappia fuscigula Bocage.

Hab. Gaboon to Angola.

31. Rappia tuberculata Mocq.

Rappia tuberculata, Mocquard, Bull. Soc. Philom. (8) ix. 1897, p. 18.

Hab. Ogowe.

32. Rappia phantastica Blgr.

Rappia phantastica, Bouleng. Ann. & Mag. N. H. (7) iii. 1899, p. 274, pl. xi. fig. 2.

Hab. Benito River (*G. L. Bates*).

33. Rappia platyceps, sp. n. (Plate XXVII. fig. 4.)

Head rather large, as long as broad, much depressed; snout rounded; loreal region oblique; interorbital space broader than the upper eyelid; tympanum hidden. Outer fingers one-fourth webbed; toes two-thirds webbed; disks rather large. The tibio-tarsal articulation reaches the eye. Skin smooth, faintly areolate on the belly. Pale brownish above, with a large blackish-brown marking with indentations extending from between the eyes to the sacral region; sides of head and body and upper surface of legs blackish brown; a whitish spot on the leg above the tibio-tarsal articulation; upper surface of thigh whitish, with a narrow dark brown streak; lower parts white.

From snout to vent 29 millim.

Two specimens from the Benito River (*G. L. Bates*).

34. RAPPIA PUSILLA Cope.

Hab. Niger Delta to Gaboon.

35. MEGALIXALUS FORNASINII Bianc.

Megalixalus fornasinii, Werner, Verb. zool.-bot. Ges. Wien, xlviii. 1898, p. 195.

Hyperolius dorsalis, Peters, Mon. Berl. Ac. 1875, p. 206, pl. i. fig. 2.

Hyperolius leptosomus, Peters, op. cit. 1877, pl. 619, pl. —. fig. 5.

Megalixalus leptosomus, Mocq. Bull. Soc. Philom. (8) ix. 1897, p. 19.

Hab. Gold Coast to Congo, Nyassaland, East Africa from the Zanzibar Coast to Delagoa Bay.

36. CHIROMANTIS RUFESCENS Ptrs.

Hab. Camaroons, Gaboon.

37. HYLAMBATES RUFUS Reichen.

Hab. Fernando Po, Camaroons, Gaboon.

38. HYLAMBATES BREVIROSTRIS Werner.

Hylambates brevirostris, Werner, Verh. zool.-bot. Ges. Wien, xlviii. 1898, p. 199, pl. ii. figs. 5 & 6.

In addition to the characters given by Werner from Camaroons specimens, this well-marked species is easily distinguished from *H. rufus* by the more dorsal position of the tympanum. The only specimen obtained by Mr. Bates on the Benito River is uniform purplish above.

DENDROBATIDÆ.

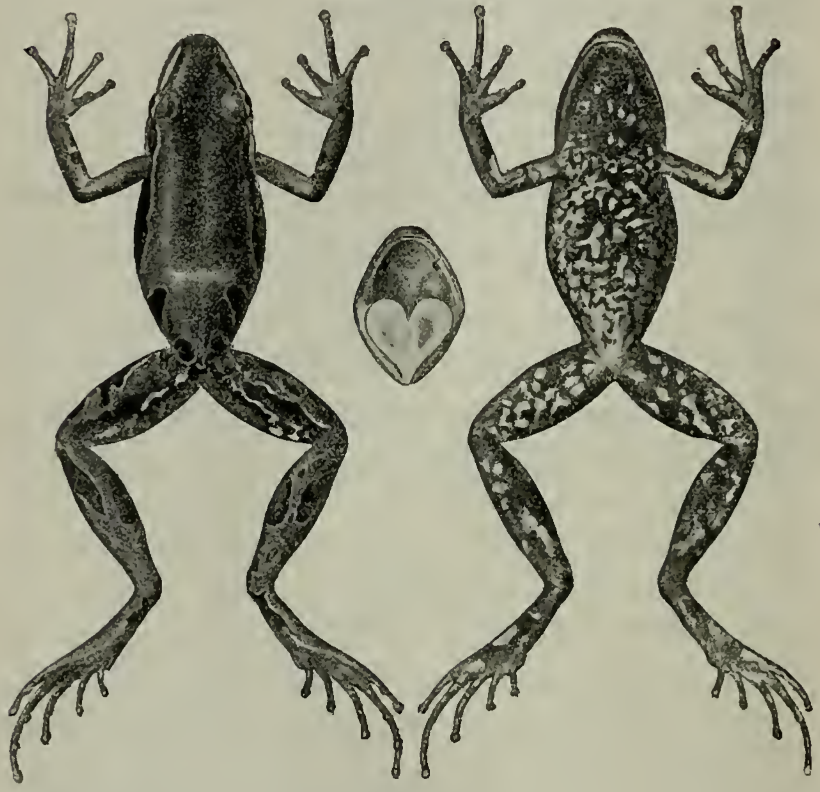
CARDIOGLOSSA, g. n.

Pupil horizontal. Tongue large, cordiform, deeply notched behind. Tympanum distinct. Fingers and toes free, the tips dilated into regular disks. Outer metatarsals united. Omosternum with a slender bony style; sternum a small cartilaginous plate, without bony style. Terminal phalanges T-shaped.

The family *Dendrobatidæ*, which may be defined as *Ranidæ* without teeth, was previously represented by two genera only: *Dendrobates*, from Tropical America, with the tongue elongate and entire and without bony style to the sternum; and *Mantella*, from Madagascar, with the tongue elongate and nicked behind and with a bony style to the sternum.

39. CARDIOGLOSSA GRACILIS, sp. n.

Fig. 2.



Cardioglossa gracilis.

Head much depressed, a little longer than broad; snout longer than the orbit, truncate at the end, scarcely projecting beyond the mouth; canthus rostralis distinct; loreal region concave; nostril near the end of the snout; eye rather small; interorbital space much broader than the upper eyelid; tympanum very distinct, two-thirds or three-fourths the diameter of the eye. Fingers and toes long and slender, the tips dilated into small disks; subarticular tubercles small but very prominent; first finger not extending quite as far as second; a rather prominent, moderately large, oval inner metatarsal tubercle. The tibio-tarsal articulation reaches the tip of the snout or a little beyond. Dark brown above and beneath; a black band, edged beneath with white, extends on each side from the nostril to halfway down the side of the body, passing through the eye and tympanum, and widening behind; this band followed by a large black inguinal spot; dark symmetrical markings on the limbs, those on the front and back of the thighs black, edged with white; lower surfaces spotted or marbled with white. Male with internal vocal sacs.

From snout to vent 37 millim.

Several specimens from the Benito River (*G. L. Bates*).

REPTILIA.

CHELONIA.

PELOMEDUSIDÆ.

1. STERNOTHÆRUS GABONENSIS A. Dum.

Hab. Gaboon; Angola.

2. STERNOTHÆRUS DERBIANUS Gray.

Hab. Cape Verde to Angola.

TESTUDINIDÆ.

3. CINIXYS EROSA Schweigg.

Hab. Gold Coast to Gaboon.

4. CINIXYS HOMEANA Bell.

Hab. Cape Verde to Gaboon.

TRIONYCHIDÆ.

5. TRIONYX TRIUNGUIS Forsk.

Hab. Tropical Africa, Nile, Syria.

6. CYCLODERMA AUBRYI A. Dum.

Hab. Gaboon.

EMYDOSAURIA.

CROCODILIDÆ.

7. CROCODILUS CATAPHRACTUS Cuv.

Hab. Senegal to Congo.

8. CROCODILUS NILOTICUS Laur.

Hab. Nile and Senegal to Cape of Good Hope; Madagascar; Syria.

9. OSTEOLÆMUS TETRASPIS Cope.

Hab. Sierra Leone to Gaboon.

LACERTILIA.

GECKONIDÆ.

10. HEMIDACTYLUS MABUIA Moreau.

? *H. angulatus* Hallow.
Hab. Tropical Africa, Madagascar, South America.

11. HEMIDACTYLUS ECHINUS O'Shaugh.

Hab. Camaroons, Gaboon.

12. HEMIDACTYLUS FASCIATUS Gray.

Hab. Gold Coast to Gaboon.
Through an oversight, this species appears in Günther's list of the Reptiles collected by Miss Kingsley as *Gymnodactylus fasciatus*, which is the name of an American Gecko.

13. HEMIDACTYLUS BOCAGII Blgr.

Hab. Gaboon, Angola.

14. HEMIDACTYLUS RICHARDSONI Gray.

Hemidactylus richardsonii, J. G. Fischer, Jahrb. Hamb. wiss. Anst. v. 1888, p. 49, pl. iv. fig. 10.
Hab. Gaboon.

15. LYGODACTYLUS CAPENSIS Smith.

Hab. Gaboon (Benito River) and Lake Tanganyika to Natal.

AGAMIDÆ.

16. AGAMA COLONORUM Daud.

Hab. Senegambia to Angola, Somaliland, and Uganda.

VARANIDÆ.

17. VARANUS NILOTICUS L.

Hab. Tropical and South Africa, Egypt.

AMPHISBÆNIDÆ.

18. MONOPELTIS DUMERILII Strauch.

Hab. Gaboon.

19. MONOPELTIS MAGNIPARTITA Ptrs.

Hab. Gaboon.

20. MONOPELTIS KOPPENFELSII Strauch.

Hab. Gaboon.

LACERTIDÆ.

21. POROMERA FORDI Hallow. (Plate XXXI. fig. 1.)

Tachydromus fordii, Hallow. Proc. Ac. Philad. 1857, p. 48.

Poromera fordii, Bouleng. Cat. Liz. iii. p. 6 (1887); Günth. Ann. & Mag. N. H. (6) xvii. 1896, p. 264.

Poromera haugi, Mocquard, Bull. Soc. Philom. (8) ix. 1896, p. 6.

Hallowell's description is faulty in several points, as I have been able to satisfy myself through inspection of the type specimen (♂) kindly sent to me from Philadelphia.

The ventral shields are in 10 longitudinal rows, not in 6. The large anal shield is bordered by a semicircle of keeled scales, a larger one on each side, connected by a series of 6. 12 femoral pores on one side, 13 on the other. In addition to this specimen, I have examined one from Lambarene, on the Ogowe, collected by Miss Kingsley and described by Dr. Günther, and seven procured by Mr. Bates on the Benito River. The dorsal shields are in 6 or 8 longitudinal, the ventrals in 8 or 10 longitudinal and 23 to 26 transverse series. The collar contains 12 to 14 shields. Males have a large, smooth præanal shield, bordered by a series of 6 or 8 keeled scales; females have the whole præanal region covered with keeled scales. 11 to 13 femoral pores on each side. Two superposed postnasals; 4 to 6 upper labials anterior to the subocular. Dark olive above, turning to bronze or copper-colour posteriorly; two light dorsal streaks, bright bluish white anteriorly; beneath greenish white in front, salmon-pink behind. The largest specimen measures 65 millim. from snout to vent.

Only known from the Gaboon district.

22. LACERTA ECHINATA Cope.

Hab. Liberia to Loango.

23. HOLASPIS GUENTHERI Gray.

Hab. Tropical Africa, from the Gold Coast and the coast of Zanzibar to Angola and the Zambesi.

GERRHOSAURIDÆ.

24. GERRHOSAURUS NIGROLINEATUS Hallow.

Hab. Gaboon to Angola.

SCINCIDÆ.

25. MABUIA RADDONII Gray.

Hab. Sierra Leone to Congo.

26. MABUIA BATESI, sp. n. (Plate XXXI. fig. 2.)

Snout short, obtuse, much depressed. Lower eyelid with a large transparent disk. Nostril behind the suture between the rostral and the first labial; a post-nasal; anterior loreal not touching the first labial; supranasals widely separated from each other, the rostral forming a broad suture with the frontonasal; latter nearly twice as broad as long; præfrontals forming a short median suture; frontal as long as the fronto-parietals and interparietal together, in contact with the first and second supraoculars; four supraoculars, second largest; seven superciliaries, first largest; frontoparietals distinct, twice as long as the interparietal; parietals short, twice as broad as long, forming a suture behind the interparietal; no nuchals; fifth and sixth upper labials largest and below the eye. Ear-opening smaller than the transparent palpebral disk; two small obtuse lobules on its anterior border. Scales smooth, smallest on the sides, 32 round the middle of the body. The hind limb reaches the elbow of the adpressed fore limb. Digits short; subdigital lamellæ obtusely keeled. Tail slightly compressed, nearly once and a half the length of the head and body, Dark olive above, with widely separated bluish spots preceded by blackish ones, forming two longitudinal series on the back; a black canthal streak; sides of the neck and axilla lineolate black and white, with some black spots; lower parts white.

	millim.		millim.
Total length	140	Fore limb	18
Head	12	Hind limb	24
Width of head	9	Tail	84
Body	44		

A single specimen from the Benito River (*G. L. Bates*).

27. Lygosoma reichenovii Peters.

Lygosoma reichenovii, Mocquard, Bull. Soc. Philom. (8) ix. 1897, p. 8.

Hab. Camaroons; Lower Ogowe.

28. Lygosoma fernandi Burton.

Hab. Fernando Po to Congo.

Anelytropidæ.

29. Feylinia curori Gray.

Hab. Sierra Leone to Angola.

RHIPTOGLOSSA.

Chamæleontidæ.

30. Chamæleon quilensis Bocage.

Chamæleon parvilobus, Bouleng. Cat. Liz. iii. p. 449.

Hab. Camaroons to South Africa.

31. CHAMÆLEON GRACILIS Hallow.

Hab. Tropical Africa, from the Gold Coast and Somaliland to Angola and Lake Tanganyika.

32. CHAMÆLEON DILEPIS Leach.

Hab. Gaboon and Somaliland to Angola, Mashonaland, and Mozambique.

33. CHAMÆLEON OWENI Gray.

Hab. Camaroons to Gaboon.

34. CHAMÆLEON CRISTATUS Stutchb.

Hab. Calabar to Gaboon.

35. RHAMPHOLEON SPECTRUM Buchh.

Rhampholeon spectrum, Mocquard, Bull. Soc. Philom. (8) ix. 1897, p. 5.

Hab. Camaroons; Lower Ogowe.

OPHIDIA.

TYPHLOPIDÆ.

36. TYPHLOPS PUNCTATUS Leach.

Hab. West Africa, from the Gambia to Angola; Central Africa.

37. TYPHLOPS CÆCUS A. Dum.

Hab. Sierra Leone, Gaboon.

BOIDÆ.

38. PYTHON SEBÆ L.

Hab. Tropical and South Africa.

39. CALABARIA REINHARDTI Schleg.

Hab. Liberia to Congo.

COLUBRIDÆ.

40. TROPIDONOTUS FULIGINOIDES Gthr.

Hab. Gold Coast to Congo; Central Africa; Mozambique.

41. TROPIDONOTUS OLIVACEUS Ptrs.

Hab. Sudan to Congo and Mozambique.

42. HYDRÆTHIOPS MELANOGASTER Gthr.

Hab. Camaroons to Congo.

43. GONIONOTOPHIS BRUSSAUXI Mocq.

Gonionotophis brussauxi, Mocquard, Bull. Soc. Philom. (8) ix. 1897, p. 13.

Gonionotus vossii, Boettg. Zool. Anz. 1892, p. 418.

Hab. Camaroons to Congo.

44. BOTHROPHTHALMUS LINEATUS Ptrs.

Hab. Liberia to Congo; Central Africa.

45. BOODON VIRGATUS Hallow.

Hab. Gold Coast to Gaboon.

46. BOODON LINEATUS D. & B.

Hab. Tropical and South Africa.

47. BOODON OLIVACEUS A. Dum.

Hab. Niger to Congo.

48. LYCOPHIDIUM LATERALE Hallow.

Hab. Gold Coast to Gaboon.

49. LYCOPHIDIUM FASCIATUM Gthr.

Hab. Sierra Leone to Gaboon.

50. HORMONOTUS MODESTUS D. & B.

Hab. Gold Coast to Loango.

51. SIMOCEPHALUS CAPENSIS Smith.

Hab. Gaboon, Nyassaland, South-east Africa.

52. SIMOCEPHALUS GUIRALI Mocq.

Hab. Camaroons to Loango.

53. CHLOROPHIS IRREGULARIS Leach.

Hab. Tropical Africa from the Gambia and British East Africa to Angola and Mozambique.

54. CHLOROPHIS HETERODERMUS Hallow.

Hab. Sierra Leone to Congo.

55. PHILOTHAMNUS SEMIVARIEGATUS Smith.

Hab. Tropical and South Africa.

56. PHILOTHAMNUS DORSALIS Bocage.

Hab. Gaboon to Angola.

57. GASTROPYXIS SMARAGDINUS Schleg.

Hab. Liberia to Angola.

58. Hapsidophrys lineata Fisch.

Hab. Liberia to Congo.

59. Rhamnophis æthiops Gthr.

Hab. Liberia to Gaboon.

60. Thrasops flavigularis Hallow.

Hab. Sierra Leone to Congo.

61. Grayia smythii Leach.

Hab. Liberia to Angola.

I have re-examined all the specimens in the British Museum in the light of the remarks recently made by Prof. Barboza du Bocage (Herp. d'Angola et du Congo, pp. 102 & 104) and by Dr. Mocquard (Bull. Soc. Philom. [8] ix. 1897, p. 9), and although I admit the possibility of several species being confounded under the name of *G. smythi*, I am unable to separate them into two by means of the characters pointed out by these authorities. This is obvious from the following tabulation of the shields and scales in the specimens examined by me:—

	Upper labials.	Scales.	Ventrals.	Caudals.
♂. Sierra Leone	8	17	148	97
♂. Oil River, Camaroons	7	17	154	99
♀. „ „	7	17	161	89
♀. Camaroons, opposite Fernando Po	8	17	161	?
♂. Gaboon	8	19	147	?
Yg. „	8	17	147	82
Yg. Lambarene, Gaboon	8	19	153	80
Yg. Cette Cama, Gaboon	8	19	145	?
Yg. Mouth of the Loango	7	17	154	99
♀. Boma, Congo	7	17	147	93
♀. Monsembe, Congo	7	17	159	96
♂. Congo	7	17	147	98
Yg. „	7	17	155	95
Yg. „	7	17	152	91
Yg. „	7	17	148	74
♂. Central Africa	8	19	150	83
Hgr. — ?	7	17	149	101

Mocquard gives 19 as the number of scales in *G. ornata=furcata*, but the types of both these supposed species are described as having only 17. A much larger material than was accessible to Bocage, Mocquard, and myself is required before the variations of the forms of this genus can be properly understood.

62. Dipsadomorphus pulverulentus Fisch.

Hab. Liberia to Angola.

63. DIPSADOMORPHUS BLANDINGII Hallow.

Hab. West Africa, from the Senegal to the Congo ; Zanzibar.

64. DIPSADOBOA UNICOLOR Gthr.

Hab. Sierra Leone to Gaboon.

A single specimen (♀, V. 192; C. 58) was sent by Mr. Bates from the Benito River. It is blackish above and white beneath, Eight upper labials, third and fourth entering the eye. A smaller specimen, collected by Miss Kingsley at Lambarene, noticed by Günther under the name of *D. assimilis* Matschie, is brown above with ill-defined darker cross-bars; eight upper labials, fourth and fifth entering the eye on the left side, third, fourth, and fifth on the left. The typical *D. unicolor* Gthr., green above, with nine upper labials, fifth and sixth entering the eye, is not confined to the island of Fernando Po, as Günther was inclined to believe; the British Museum has recently acquired a similar, but larger, specimen (total length 710 millim.; tail 145) from Sierra Leone. *Anoplodipsas viridis* Ptrs., of which *Heterurus bicolor* Jan is a strict synonym, is green above and has eight upper labials, fourth and fifth entering the eye. There is thus no correspondence between the colour and the number of the labials. I therefore do not think *D. assimilis* can be separated, as a species, from *D. unicolor*, however much extreme forms may differ. F. Werner (Verh. zool.-bot. Ges. Wien, xlvii. 1897, p. 399), after examination of 8 specimens from Togoland, has arrived at the same conclusion.

65. PSAMMOPHIS SIBILANS L.

Hab. Tropical Africa and Egypt.

66. THELOTORNIS KIRTLANDI Hallow.

Hab. Tropical and South Africa.

67. MIODON COLLARIS Ptrs.

Hab. Old Calabar to Angola.

68. MIODON GABONENSIS A. Dum.

Hab. Old Calabar to Congo.

69. POLEMON BOCOURTI Mocq.

Polemon bocourti, Mocquard, Bull. Soc. Philom. (8) ix. 1897, p. 13.

This species differs from *P. barthi* Jan in having two postoculars and a lower number of ventral shields (178–202). A single specimen from Lambarene (V. 171; C. 24) in Miss Kingsley's collection has been referred by Günther to *P. barthi*.

70. ELAPOPS MODESTUS Gthr.

Hab. Liberia to Congo.

71. Boulengerina annulata Buchh. & Ptrs. (Plate XXXII.)

Naja annulata, Buchh. & Peters, Mon. Berl. Ac. 1876, p. 419; Mocquard, Bull. Soc. Philom. (7) xi. 1887, p. 84; Bocage, Herp. Angola, p. 137 (1895).

Aspidelaps bocagii, Sauvage, Bull. Soc. Zool. France, 1884, p. 205, pl. vi. fig. 2.

Boulengerina annulata, Mocquard, Bull. Soc. Philom. (8) ix. 1897, p. 14.

Two perfectly typical young specimens (V. 227–230; C. 72, 70) were obtained on the Benito River by Mr. Bates. The only difference, apart from the markings, between this species and *B. stormsi* Dollo resides in the number of scales (23 instead of 21), and it is quite possible the two may have to be united when we become acquainted with a larger number of specimens.

Hab. Gaboon to Congo.

72. Elapechis guentheri Bocage.

Hab. Gaboon to Angola; Nyassaland.

73. Naia melanoleuca Hallow.

Hab. Tropical Africa, from the Gambia and British East Africa to Angola and the Zambesi.

74. Naia goldii Blgr.

Pseudohaje nigra, Günth. Cat. Col. Sn. p. 222 (1858), nec *Naia nigra*, Smith.

Naia goldii, Bouleng. Ann. & Mag. N. H. (6) xvi. 1895, p. 34, and Cat. Sn. iii. p. 387, pl. xx. fig. 2 (1896).

Naia guentheri, Bouleng. Cat. t. c. p. 388, pl. xxi., and Ann. & Mag. N. H. (6) xix. 1897, p. 154.

Naia yakomæ, Mocquard, C. R. Congr. Intern. Zool. Leyden, 1895, p. 233 (1896).

Hab. Sierra Leone to Congo.

A large specimen was obtained by Mr. Bates on the Benito River. It has two præoculars on one side and one on the other; third and fourth upper labials entering the eye. Scales in 15 rows on the neck as well as on the body; ventrals 199; subcaudals 92. Uniform black above. I am now convinced that *N. guentheri* and *N. goldii* cannot be maintained as distinct species.

75. Dendraspis jamesoni Traill.

Hab. Niger to Angola; Central Africa.

76. Bitis gabonica D. & B.

Hab. Liberia to Damaraland; Zanzibar; Mozambique.

77. Bitis nasicornis Shaw.

Hab. Liberia to Gaboon.

78. ATHERIS CHLORECHIS Schleg.

Hab. Liberia to Gaboon.

79. ATHERIS SQUAMIGER Hallow.

Hab. Camaroons to Angola.

80. ATRACTASPIS CORPULENTA Hallow.

Hab. Liberia to Gaboon.

81. ATRACTASPIS BOULENGERI Mocq.

Atractaspis boulengeri, Mocq. Bull. Soc. Philom. (8) ix. 1897, p. 16.

Hab. Lambarene, Ogowe.

EXPLANATION OF THE PLATES.

PLATE XXVII.

Fig. 1. *Bufo latifrons*, p. 435.
2. *Arthroleptis inguinalis*, p. 442, two specimens.
3. *Dilobates platycephalus*, p. 444.
4. *Rappia platyceps*, p. 444.

PLATE XXVIII.

Fig. 1. *Scotobleps gabonicus*, p. 439.
1 *a*. „ „ Side view of head.
1 *b*. „ „ Open mouth.
2. *Phrynobatrachus auritus*, p. 440.
3. „ *latirostris*, p. 440.

PLATE XXIX.

Gampsosteonyx batesi, p. 442.

a. Upper view.
b. Side view of head.
c. Open mouth.
d. Side view of 4th toe, enlarged.
e. Lower view of 4th toe, enlarged.
f. Distal phalanges.

PLATE XXX.

Trichobatrachus robustus, p. 443.

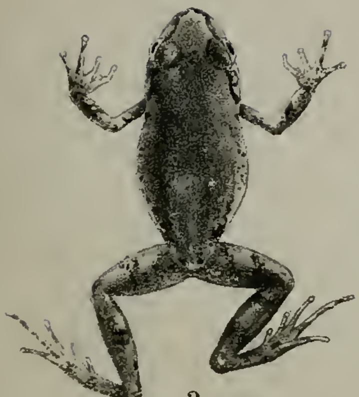
a. Female, upper view.
b. Side view of head.
c. Open mouth.
d. Inner side of first finger of breeding male, enlarged.

PLATE XXXI.

Fig. 1. *Poromera fordi*, female, p. 449.
1 *a*. „ „ „ Side view of head, × 2.
1 *b*. „ „ „ Lower view of head, × 2.
1 *c*. „ „ „ Anal region, × 2.
1 *d*. „ „ male. Anal region, × 2.
2. *Mabuia batesi*, p. 449.

PLATE XXXII.

Boulengerina annulata, p. 455, with upper and lower views of head.



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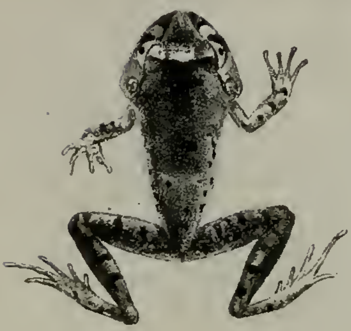

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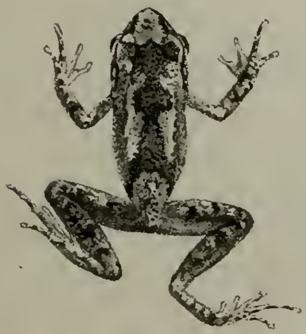

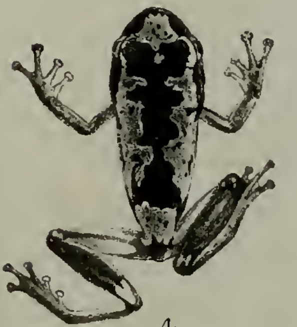

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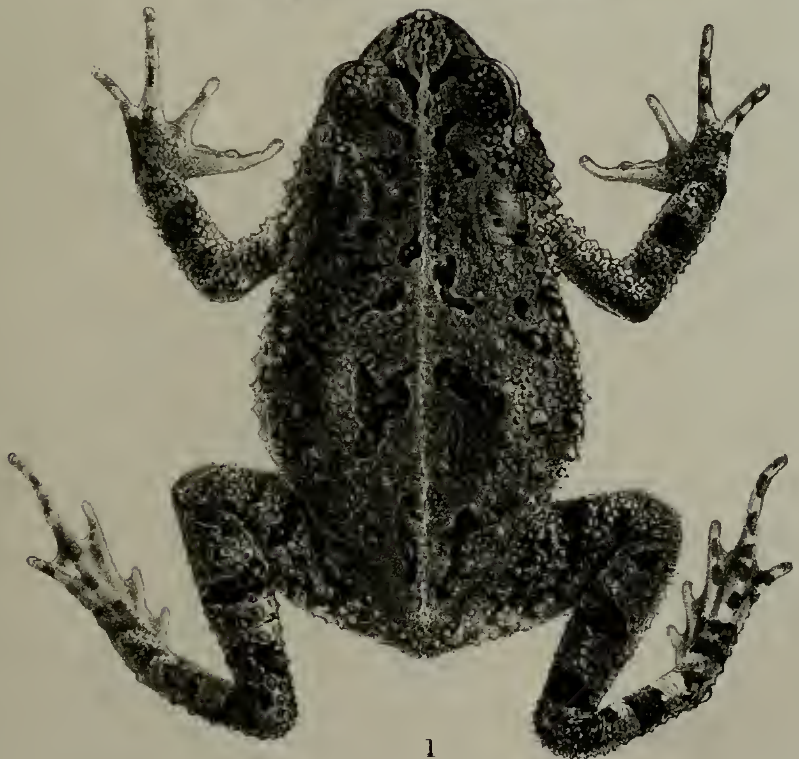
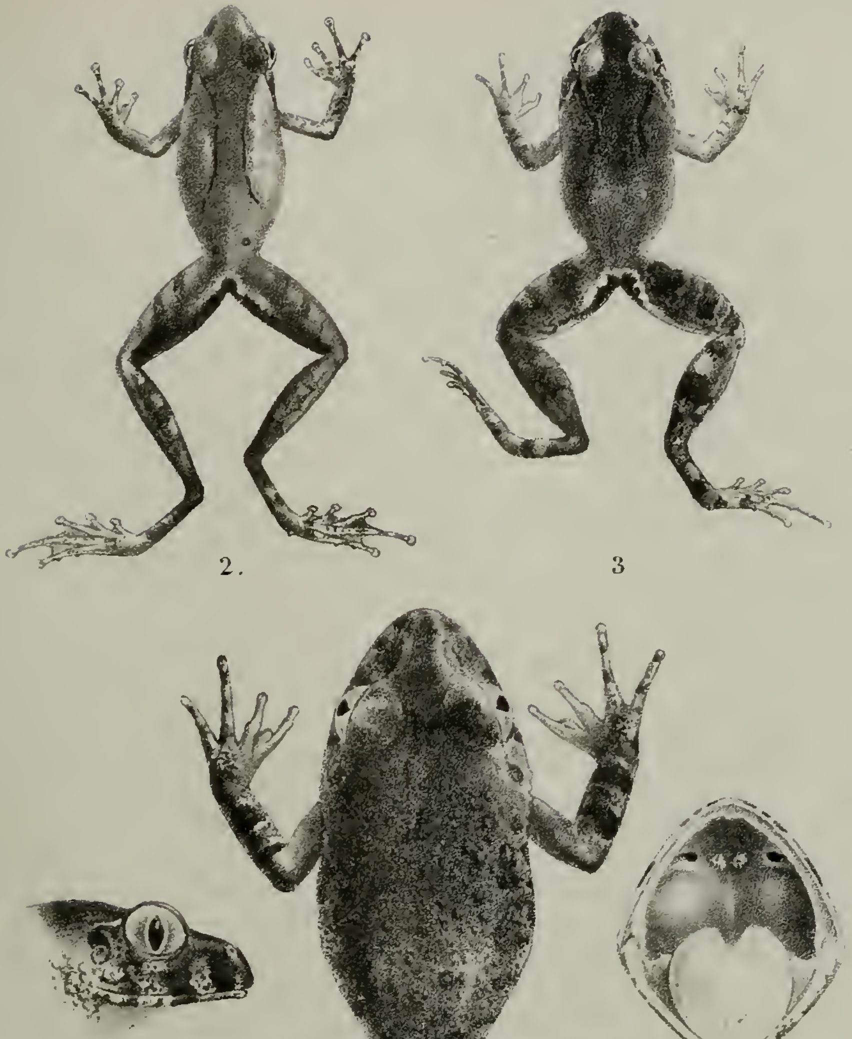


1

P. J. Smit del et lith.

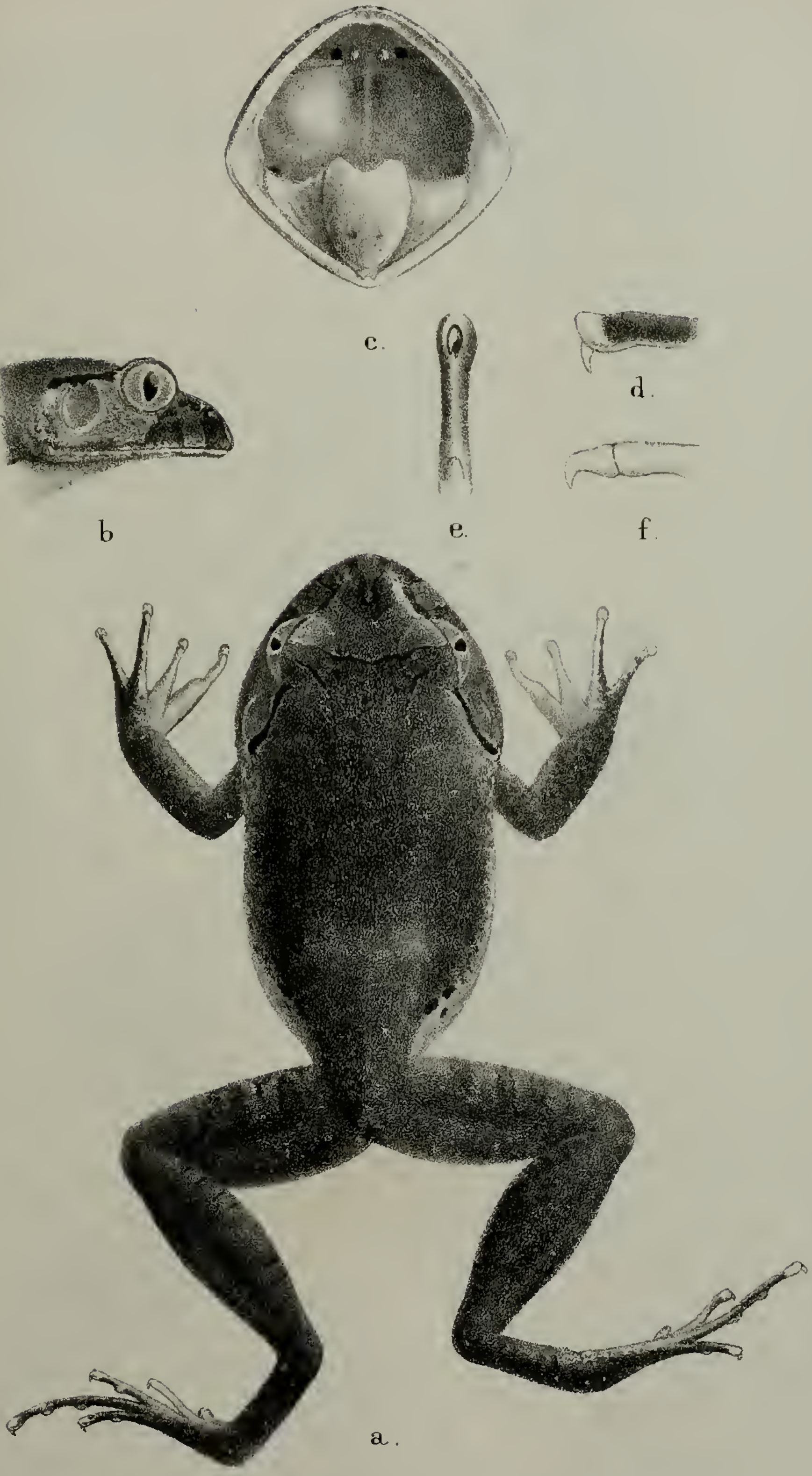
Mintern Bros. imp.

1. BUFO LATIFRONS. 2. ARTHROLEPTIS INGUINALIS
3. DILOBATES PLATYCEPHALUS. 4. RAPPIA PLATYCEPS.



P.J. Smit del. et lith.
Mintern Bros. imp.

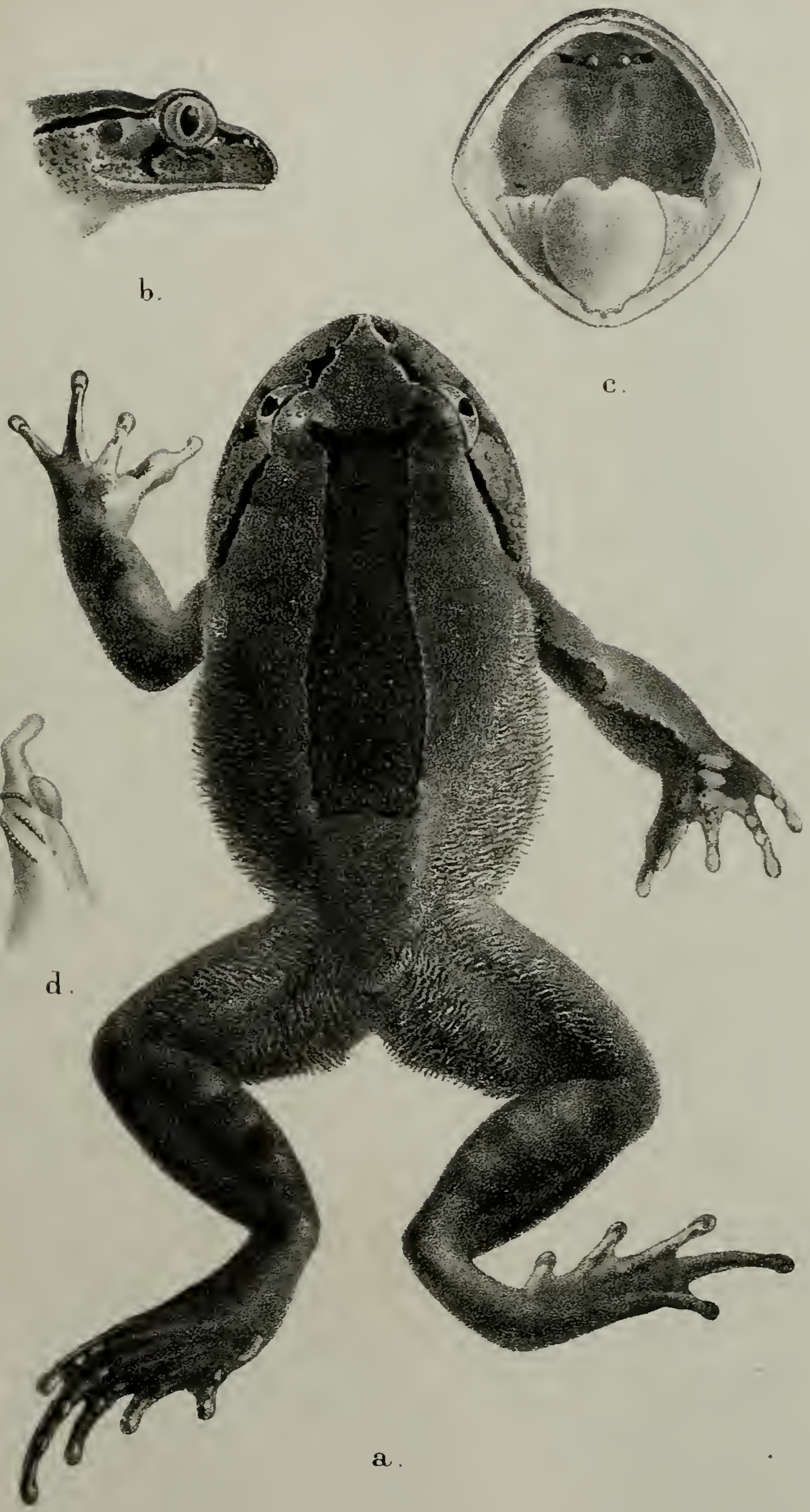
1. SCOTOBLEPS GABONICUS. 2. PHRYNOBATRACHUS AURITUS.
3. PHRYNOBATRACHUS LATIROSTRIS.



P. J. Smit del. et lith.

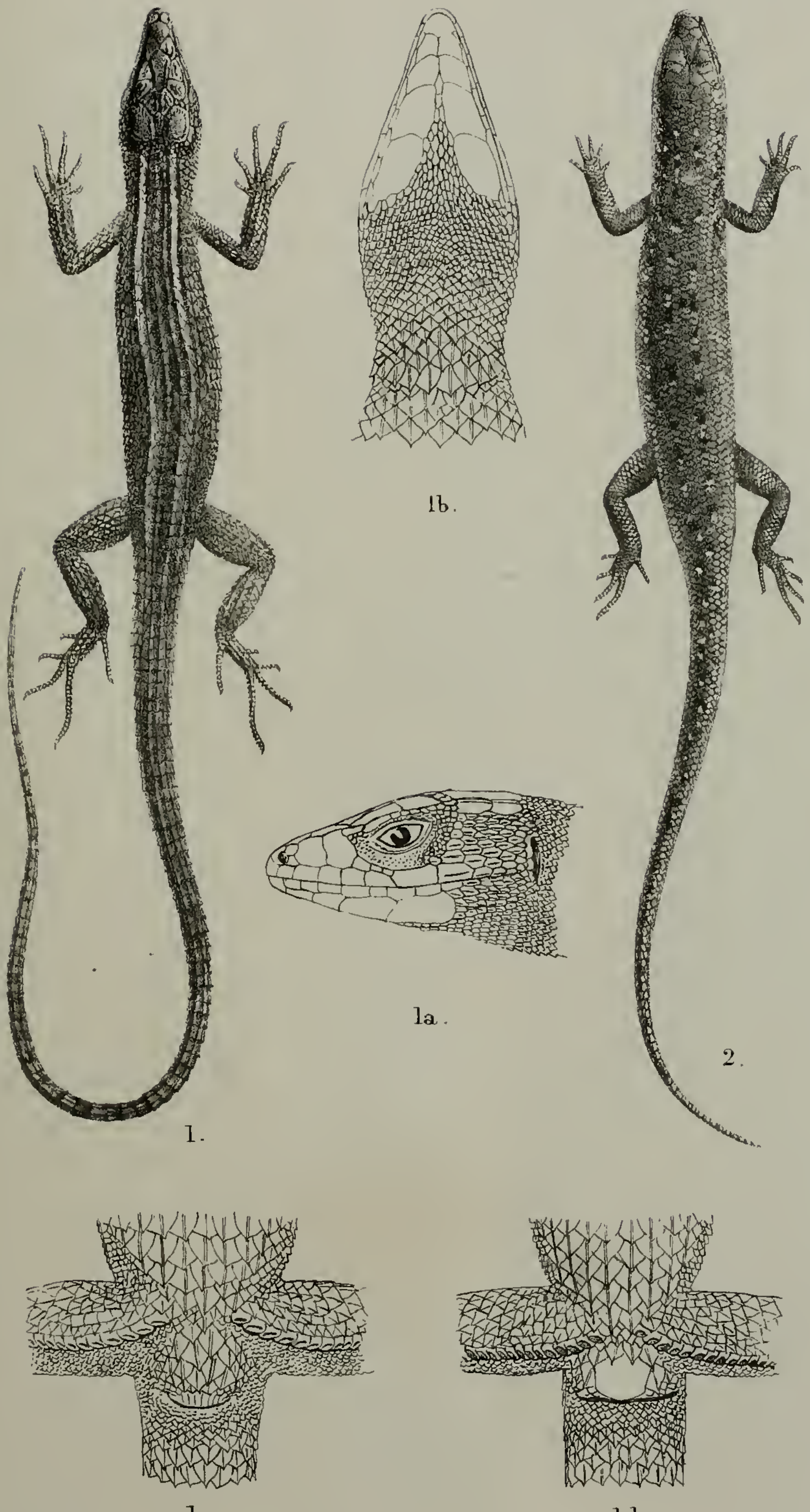
Mintern Bros. imp.

GAMPSOSTEONYX BATESII.



P.J. Smit del. et lith.
Mintern Bros. imp.

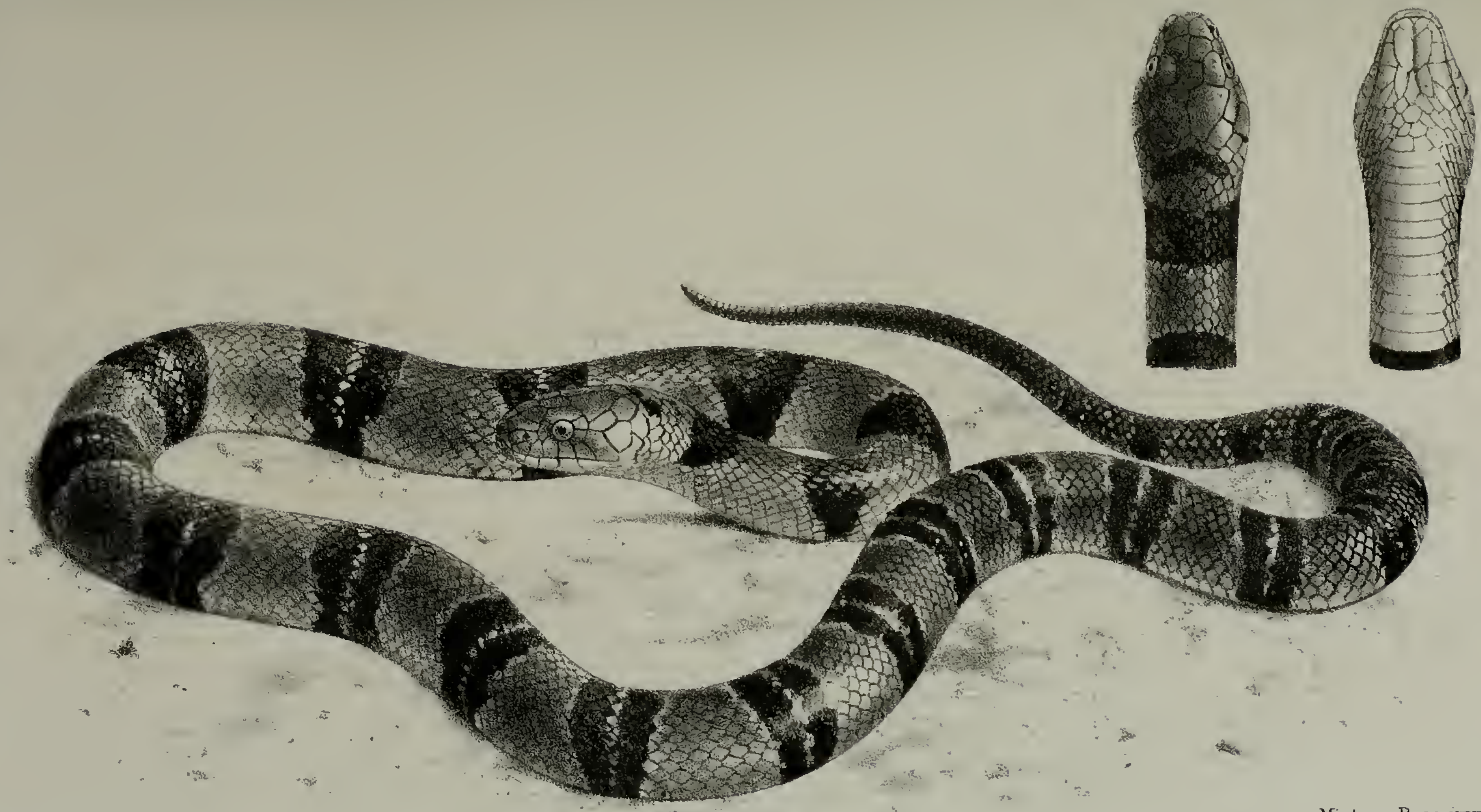
TRICHOBATRACHUS ROBUSTUS.



P.J. Smit del.et lith.
Mintern Bros. imp

1. POROMERA FORDII. 2. MABUIA BATESII.

P.Z.S.1900.Pl.XXXII.



P.J.Smit del.et lith.

Mintern Bros.imp.

BOULENGERINA ANNULATA.